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PRC

PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION

GE AVIATION SERVICE CENTER CINCINNATI, OHIO OHD 000 817 304

FINAL REPORT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, DC 20460

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EXECUTIVE SUMMARY

PRC Environmental Management, Inc. (PRC), performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from solid waste management units (SWMU) and other areas of concern (AOC) at the General Electric Aviation Service Center (GE) facility in Cincinnati, Ohio. This report summarizes the results of the PA/VSI and evaluates the potential for releases of hazardous wastes or hazardous constituents from SWMUs and AOCs identified. In addition, a completed U.S. Environmental Protection Agency (EPA) Preliminary Assessment document (EPA Form 2070-12) is included in Attachment A to assist in prioritization of RCRA facilities.

The GE facility has operated at 1350 Tennessee Avenue since 1975, and currently employs 175 people working three shifts a day. The plant occupies approximately 38,300 square feet of the site's nearly 42,500 square feet. GE repairs high-pressure jet aircraft engine turbine blades. These parts are shipped to the facility from commercial airline repair centers for repair and rebuilding. Small, high pressure turbine blades are individually inspected to determine if the part can be repaired or needs to be replaced. A variety of welding, grinding, and special coating operations are performed during repair and reconditioning of the blades.

Solvent cleaning, grit-blasting, acid-etching, protective coating, and electric discharge machining operations are the primary waste generation activities at the site. Hazardous wastes managed on-site, past and present, include D001, D002, D007, F001, F002, and F006. Two RCRA permitted hazardous waste units underwent certified closure on September 28, 1990, and the facility is currently considered a generator that stores hazardous wastes for less than 90 days.

The PA/VSI identified the following 4 SWMUs at the facility:

Solid Waste Management Units

1. Existing Hazardous Waste Container Storage Area
2. Former Hazardous Waste Container Storage Area
3. Neutralization Pit and Chemical Room Area
4. Grit Blast and Codep Powder Dust Collectors

The potential for a release to ground water is low to moderate. The neutralization pit (SWMU 3) is a 16-year old in-ground, resin-coated, 650-gallon fiberglass tank. The pit is used to treat wastewater prior to release to the Cincinnati Metropolitan Sewer District. No secondary containment structures exist for the tank. Ground water use is limited to a few industrial sites located about 2 miles east (upgradient) of the facility.

The potential for a release to soil and surface water is low to moderate. A release from the neutralization pit into surrounding soil and ground water could migrate off site and seep into Ross Run. Ross Run is an intermittent stream located about 400 feet south of the unit. No monitoring system exists to detect a release from the neutralization pit.

The grit blast and Codep powder dust collectors have a high potential for future release. A release was observed from this unit during the visual site inspection on April 15, 1991. The grit blast dust material is composed primarily of aluminum oxide, and is disposed of as non-hazardous waste in a sanitary landfill. The dust is covered immediately due to the hazard posed by its small particle size. Dust from the grit blast collectors was found 10 to 15 feet from the unit.

There is limited access to the solid waste management units at the facility. All SWMUs are protected by 6-foot high security fences. However, due to the observed release from SWMU 4, the facility will continue to pose a high potential for release to the air. The facility should be advised to document inspections of collectors daily to prevent the escape of dusts collected by the units. The 6-foot-high security fence and windbreak surrounding the unit does not prevent the spread of this waste. The 175 GE employees are the primary receptors for any release from this facility. Proper monitoring of this unit should reduce the potential for further releases. In addition, the facility should certify the integrity of the 16-year old neutralization pit. Enforcement of these requirements would substantially reduce the potential for releases from this facility.

1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5.

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC). The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility.
- Obtain information on the operational history of the facility.
- Obtain information on releases from any units at the facility.
- Identify data gaps and other informational needs to be filled during the VSI.

The PA generally includes review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA.
- Identify releases not discovered during the PA.
- Provide a specific description of the environmental setting.
- Provide information on release pathways and the potential for releases to each medium.
- Confirm operational, SWMU, AOC, and release information obtained during the PA.

The VSI includes interviewing appropriate facility staff, inspecting the entire facility to identify all SWMUs and AOCs, photographing all SWMUs, identifying evidence of releases,

initially identifying potential sampling locations, and obtaining all information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the General Electric Aviation Service Center (GE) facility OHD 000 817 304 in Cincinnati, Ohio.

The PA was completed on April 15, 1991. PRC gathered and reviewed information from Ohio Environmental Protection Agency (OEPA), Ohio Department of Natural Resources (ODNR), United States Geological Survey (USGS), United States Department of Agriculture (USDA), and from EPA Region 5 RCRA files.

The VSI was conducted on April 15, 1991. It included interviews with GE facility representatives and a walk-through inspection of the facility. Four SWMUs and no AOCs were identified at the facility. A complete EPA Preliminary Assessment document (EPA Form 2070-12) is included in Attachment A. The VSI is summarized and 6 inspection photographs are included in Attachment B. Field notes from the VSI are included in Attachment C.

2.0 FACILITY DESCRIPTION

This section describes the facility's location, past and present operations (including waste management practices), waste generating processes, release history, regulatory history, environmental setting, and receptors.

2.1 FACILITY LOCATION

The GE facility is located at 1350 Tennessee Avenue in the north-central part of Cincinnati (latitude 39°10'7" and longitude 84°28'17"). This part of the city is an older, mixed industrial and residential community. GE occupies a 42,500-square-foot site, of which 38,300 square feet are occupied by plant buildings. The GE facility is bordered on the north by B&O Railroad and on the south by Tennessee Avenue (see Figures 1 and 2). GE leases the site from Miller & Miller Real Estate Company.

2.2 FACILITY OPERATIONS

The GE facility has operated at 1350 Tennessee Avenue since 1975 and currently employs 175 people working three shifts a day. The Miller Belt Company occupied the site prior to 1975.

GE repairs and rebuilds high pressure jet aircraft engine turbine blades. These parts are shipped to the facility from commercial airline repair centers. Small, high-pressure turbine blades are individually inspected to determine if the part should be repaired or replaced.

A variety of welding, grinding, machining, and special coating operations are performed during the inspection, repair, and reconditioning of the blades (GE, 1991). Some of these operations produce hazardous wastes and four SWMUs were identified (see Table 1). The existing hazardous waste container storage area (SWMU 1) is located outside in an area west of the main building (see Figure 2). This three-sided shed constructed in 1985 is used to store hazardous wastes with the following EPA codes: D001, D002, D007, F001, and F002 are stored in 55-gallon drums. F006 wastes are stored in 180-gallon tote tanks.

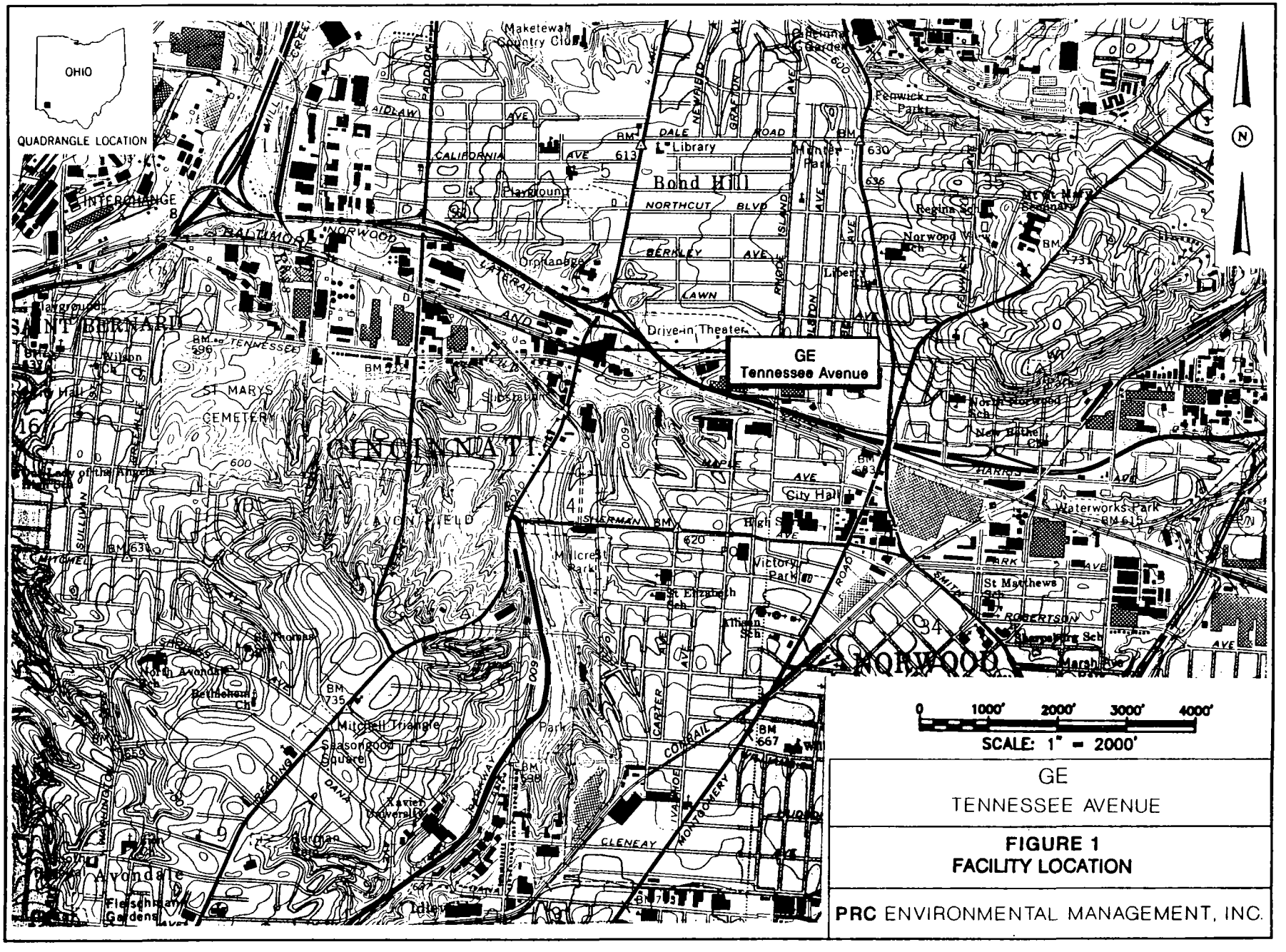
The former hazardous waste container storage area (SWMU 2) is located inside the main plant building at the rear of the loading dock area and is currently used for satellite accumulation. F001, F002, D001, D002, and D007 hazardous wastes are stored single file, two drums deep, on metal trays.

TABLE 1
SOLID WASTE MANAGEMENT UNITS (SWMU)

SWMU Number	SWMU Name	RCRA Hazardous Waste Management Unit*	Status
1	Existing Hazardous Waste Container Storage Area	Yes	Active, less than 90-days storage
2	Former Hazardous Waste Container Storage Area	Yes	Active, satellite accumulation area
3	Neutralization Pit Chem Room Area	No	Active
4	Grit Blast and Codep Powder Dust Collectors	No	Active

Note:

* A RCRA hazardous waste management unit was one that formerly required a RCRA permit.



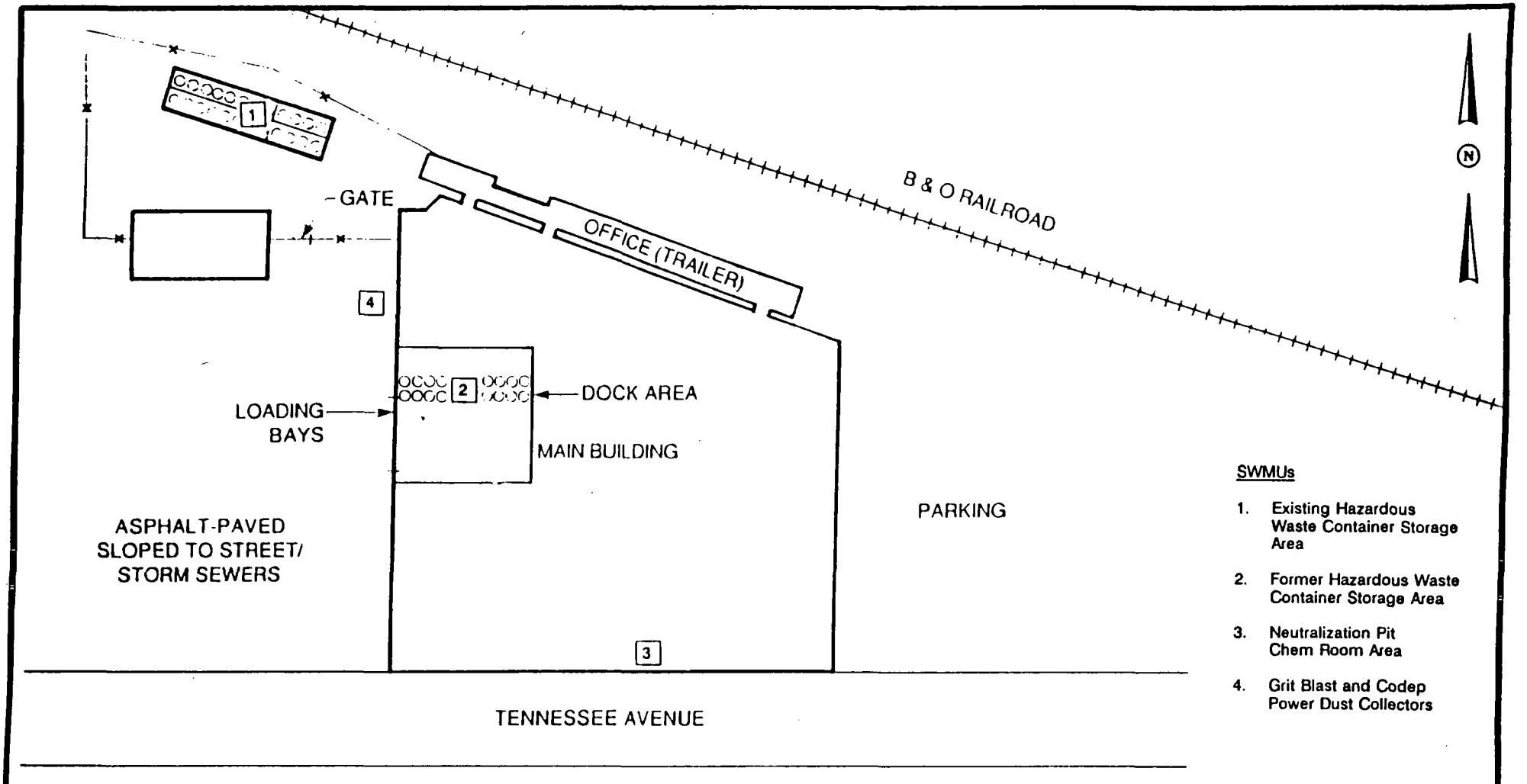
GE

TENNESSEE AVENUE

FIGURE 1
FACILITY LOCATION

PRC ENVIRONMENTAL MANAGEMENT, INC.

SOURCE: USGS 7 ½ Minute Topographical Quadrangle Map, Cincinnati East, Ohio, 1961, photorevised 1981.



SOURCE: Dames & Moore, 1989.

GE
TENNESSEE AVENUE

FIGURE 2
FACILITY LAYOUT

PRC ENVIRONMENTAL MANAGEMENT, INC.

The neutralization pit and chemical room area (SWMU 3) is located in the south-central part of the main building. The 650-gallon neutralization pit is at the extreme southern end of the chemical room; the pit contains rinse water generated by nitric and phosphoric acid wash and rinse operations. In addition, satellite acid etch stations located throughout the plant generate muriatic acid, nitric acid, and hydrochloric acid wastewater. These acids drain through polyvinyl chloride (PVC) pipe to the neutralization tank for wastewater treatment (pH adjustment) prior to discharge to the Metropolitan Sewer District (MSD).

Dusts produced by grit blasting and Codep powder-coating operations are managed by three dust collection systems (SWMU 4) located on the west side of the main building. The grit blasting operations use aluminum oxide grit to polish and remove excess coatings and material from parts. The Codep powder-coating operation coats parts with aluminum oxide, titanium, and carbon dust. These dusts are activated by ammonium chloride to apply a depositional coating when the parts are heated in a furnace. The wastes handled by this unit are considered non-hazardous. Because of the airborne susceptibility of the material, these wastes are disposed of in a special section of Browning-Ferris Industries (BFI) solid waste disposal sanitary landfill.

2.3 WASTE GENERATING PROCESSES

A variety of welding, grinding, machining and coating operations are performed during inspection, repair, and reconditioning of the blades. Some of these operations produce hazardous wastes. During the VSI four areas of the GE facility were identified as SWMUs (see Table 1).

The existing hazardous waste container storage area stores: D001, D002, D007, F001, and F002 hazardous wastes in 55-gallon drums. F006 wastes are stored in 180-gallon tote tanks. Wastes stored here are primarily generated from parts cleaning and coating operations. Metal coatings are stripped off of parts in nitric and phosphoric acid wash operations in the Chemical Room, and generate F006 wastes. Three vapor degreasers used in parts cleaning operations generate waste oil contaminated with 1,1,1-trichloroethane. 1,1,1-trichloroethane wastes are also generated by small part cleaning operations. Other wastes stored in this area are the result of aluminum and chromium coatings (Sermaloy-J) applied to parts in the Sermaloy coating room. This process started in 1978, and excess spray, contaminated aluminum foil, paper towels, plastic aprons, gloves, and paper generated by this operation are disposed of as hazardous waste. Ferric chloride etch waste generated in the chemical room is also stored here.

The former hazardous waste container storage area (SWMU 2) is currently used for satellite accumulation. D001, D002, D007 F001, and F002, hazardous wastes are stored in single

TABLE 2
SOLID WASTES

Waste/EPA Waste Code	Source	Primary Management Unit*
1,1,1-trichloroethane/F001, F002	Parts cleaning	1, 2
Liquid N.O.S. (Sermaloy, Acidic phosphate, Acidic chromate, Aluminum, Silicon powder)/ D007	Coating Operations	1, 2
Solid N.O.S. (Sermaloy, Acidic phosphate, Acidic chromate, Aluminum, Silicon powder)/D007	Coating Operations	1,2
Waste oil containing 1,1,1-trichloroethane/D001, F001	Vapor Degreasers	1
Waste nitric and phosphoric acid /D002, D007,	Metal Stripping	1
Wastewater treatment sludges/F006	Neutralization Pit	1

Source: Dames & Moore, 1989

Note:

* Primary management unit refers to a SWMU that currently manages the waste.

file, two drums deep, on metal trays. Drums are placed 6 feet from the west wall along the aisle railing; drums are then transferred to SWMU 1 when filled. Wastes stored here are generated by the same operations mentioned above. This area was formerly used for additional storage of hazardous wastes prior to closure.

The neutralization pit-chemical room area (SWMU 3) is located in the south-central part of the main building. The neutralization pit handles an estimated 650 gallons of rinse water (at any given time) from nitric and phosphoric acid wash and rinse operations in the chemical room. These operations remove coatings applied to turbine blades. Satellite acid etching stations located throughout the plant generate muriatic acid, nitric acid, and hydrochloric acid wastewaters from metal polishing operations. The wastewaters from these operations are transferred to the neutralization pit for treatment and discharge. The pH is automatically adjusted to between 6 and 10 before the wastewater is discharged to the MSD sanitary sewer. Sodium hydroxide is typically added for pH adjustment. Wastewater from air scrubbers also empties into the neutralization pit for discharge to the MSD.

Dusts produced by grit blasting and Codep powder-coating operations are managed by three dust collection systems (SWMU 4) located on the west side of the main building. The two northern-most dust collectors handle dusts from the grit-blasting operations. The grit-blasting operations blast aluminum oxide grit to remove excess material from the turbine blades. The third collector handles dusts from the Codep powder room coating operations. Operations in the Codep powder room coat parts with a mixture of aluminum oxide, titanium, and carbon. These powder coatings are activated with ammonium chloride to form a coating that is depositionally baked onto the turbine blades.

2.4 RELEASE HISTORY

No releases were documented at the site prior to the VSI on April 15, 1991; however, a release of aluminum oxide grit and dust from the grit-blasting dust collectors (SWMU 4) was observed on the ground around the collectors. In addition, dust was observed overflowing a barrel used to collect the grit-blasting dust.

2.5 REGULATORY HISTORY

Two Part A permit applications have been submitted by the facility in the past 10 years. The original Part A was submitted in August 1980 (GE, 1980). The Hazardous Waste Facility Approval Board granted the site a Hazardous Waste Facility Installation and Operation Permit on December 28, 1981 (HWFAB, 1981). The second Part A permit application was submitted in August 1989 to provide information on current operations at the site (GE, 1989).

On February 28, 1990, closure activities were initiated at the existing and former hazardous waste storage areas of the facility (Dames & Moore, 1990). Closure activities were begun to change the facility's status to that of a generator. The site had been considered both a generator and storage facility since 1981. Closure activities performed include:

- Waste removal
- Containment trays and concrete pad hydroblasting
- Final rinsate sampling
- Wash solution disposal

Following closure activities and rinsate lab analysis, the OEPA granted certified closure to the two hazardous waste storage areas on September 28, 1990. Currently the facility no longer stores hazardous waste for greater than 90 days.

GE has eight air permits associated with vapor degreasers, coating, and welding operations at the facility. No air permit violations have occurred. In addition, the facility does not have any pretreatment or NPDES permits.

2.6 ENVIRONMENTAL SETTING

This section describes the climate, flood plain and surface water, geology and soils, and ground water in the vicinity of the GE facility.

2.6.1 Climate

The climate in Cincinnati is characterized by cold winters and hot summers, with a yearly average temperature of 54°F. The lowest average temperature is 21.7°F in January, and the highest average temperature is 86.8°F occurring in July. Precipitation for southwestern Ohio is well distributed throughout the year. The average yearly amount of precipitation for Hamilton

County is 40.07 inches. Rainfall peaks occur in March at 4.18 inches, with only 2.38 inches of precipitation in October (USDA,1982). The 1-year, 24-hour rainfall average is 2.6 inches and the average yearly net precipitation is 6.0 inches (U.S. Department of Commerce, 1963). The prevailing wind is from the south-southwest, and the highest average wind-speed is 11 miles per hour in winter .

2.6.2 Flood Plain and Surface Water

The GE facility is located in an area with no identified flood hazards (ODNR, 1991). Drainage from the site is about 400 feet to the south, towards a small intermittent stream known as Ross Run. Ross Run discharges to the Mill Creek, the nearest surface water body with year-round water, approximately one mile west of the site. The Mill Creek is currently used as an industrial and residential storm water discharge stream. No recreational use of this surface water body is presently known. The Mill Creek discharges to the Ohio River. The Ohio River is used for recreational boating, fishing, commercial shipping, and supplies drinking water to cities and towns along the river.

2.6.3 Geology and Soils

Hamilton County lies almost on the crest of the Cincinnati Arch, a large anticline running from Tennessee to Canada. The bedrock in the area is Ordovician-age shale, with thin inter-bedded limestone lenses. During the Tertiary Period of the Cenozoic Era, the Hamilton County area was deeply eroded by a large drainage system, emptying into the ancient Teays River system. Pleistocene glaciation radically altered the drainage system, changing flow directions and filling valleys with glacial valley-train clay, silt, sand, and gravel deposits.

The GE facility is situated in the Norwood Trough, a pre-glacial valley formed by the ancestral Ohio River. This wide (now abandoned) river valley trends northward from the mouth of the Little Miami River, east of Cincinnati via Mariemont, Oakley, and Norwood to Saint Bernard. Here the ancestral Ohio River was joined by the valley of the north-flowing pre-Illinoian Licking River, now occupied by the present day Mill Creek. Overlying the Ordovician-age bedrock are thick deposits of glacial outwash sands and gravel that form an aquifer in the Norwood Trough. The glacial deposits consist of a varied mixture of sand, gravel, and clay. The upper deposits, from 100 to 130 feet thick, consist largely of beds of clay. Beds of sand and gravel exist 130 to 240 feet below the surface and become coarser with depth (ODNR, 1946).

2.6.4 Ground Water

The GE facility is situated over a buried valley aquifer known locally as the Norwood Trough aquifer. The aquifer consists of outwash sands and gravel deposited in the lower part of the deep-stage ancestral Ohio River. A thick layer of clay overlying permeable glacial materials prevents local recharge of the aquifer. Water-level records indicate that a high percentage of the water withdrawn from the aquifer has been obtained from storage (ODNR, 1946).

4.5 million gallons of water per day were withdrawn from the Norwood Trough in 1945 (ODNR, 1946). Wells pumping the Norwood Trough aquifer are screened in the coarser sand and gravel beds located 130 to 240 feet below ground surface. U.S. Playing Cards is located approximately 2 miles east (upgradient) of the site and still pumps 300,000 gallons of water from the Norwood Trough aquifer for cooling equipment.

2.7 RECEPTORS

The GE facility is located in the north-central part of Cincinnati. Based on the 1990 census, an estimated 17,280 people live within 3 miles of the facility (Moran, 1992). This part of the city is an older, mixed industrial and residential community. The area directly east and west of the site is filled with moderate to heavy industry for several miles in each direction; the area north and south of the site contains residential neighborhoods. The nearest residential area is located approximately 1000 feet southwest of the facility. GE employs 175 people working three shifts a day; they are considered the primary receptors.

Ground-water use is limited to a few industrial sites located approximately 2 miles east (upgradient) of the facility. No residential use of the ground water is known. Drinking water for the City of Cincinnati comes from the Ohio River. These intakes are located approximately 9 miles southeast of the facility and nearly 8 miles upstream of the Mill Creek confluence with the Ohio River.

Surface water at the site drains to the south towards a small intermittent stream known as Ross Run. Ross Run discharges to Mill Creek, the nearest surface water body with year-round water, approximately 1 mile west of the site. The Mill Creek is currently used as an industrial and residential storm water discharge stream. No recreational use of this surface water body is presently known.

A 6-foot high security fence surrounds the existing hazardous waste storage area and dust collection systems, limiting access to these areas.

3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the 4 SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of release, and PRC observations.

SWMU 1	**Existing Hazardous Waste Container Storage Area**
Unit Description:	This unit is located in an outside area west of the main building (see Figure 2 and Photo No.2) and consists of a three-sided shed constructed in 1985. Hazardous wastes are stored in 55-gallon drums and in 180-gallon tote tanks.
Date of Startup:	The unit began operations in 1985.
Date of Closure:	The OEPA granted certified closure of the unit on September 28, 1990. Presently, no wastes are stored in this area for longer than 90 days.
Wastes Managed:	This unit manages 1,1,1-trichloroethane (F001, F002), Liquid Sermaloy, Acidic phosphate, Acidic chromate, Aluminum, Silicon powder (D007), Solid Sermaloy, Acidic phosphate, Acidic chromate, Aluminum, Silicon powder (D007), Waste oil mixture containing 1,1,1-tri-chloroethane (F001), Waste nitric and phosphoric acid (D002, D007), and F006 wastewater treatment sludges (Dames & Moore, 1989).
Release Controls:	Hazardous wastes are stored in a three-sided shed constructed of a 4-inch by 4-inch timber frame clad with fiberglass panels. The south side is exposed. Wastes are stored in 180-gallon tote tanks and 55-gallon drums on an elevated steel grating. Beneath the elevated grating is a 2-foot high concrete containment dike. The area immediately surrounding the unit is paved with asphalt.
History of Release:	No documented release has occurred at this unit.
Observations:	Construction of this unit appears to be structurally sound and in good condition.

SWMU 2	**Former Hazardous Waste Container Storage Area**
Unit Description:	This unit is located inside the main plant building in the loading dock area (see Figure 2 and Photo No.1). Containerized hazardous waste is stored in one row, two drums deep. Drums are placed approximately 6 feet from the west wall of the dock area along an aisle railing. The floor is level and constructed of concrete (Dames & Moore, 1989).
Date of Startup:	This unit is used for satellite accumulation of hazardous waste. This unit was used for additional storage of hazardous wastes from 1980 to 1989.
Date of Closure:	The OEPA granted certified closure of the unit on September 28, 1990. Presently, no wastes are stored in this area for longer than 90 days.
Wastes Managed:	This unit manages 1,1,1-trichloroethane (D001) and waste oil containing 1,1,1-trichloroethane (F001).
Release Controls:	Drums are stored in 2.5-feet-wide by 6.4-feet-long steel trays with 7-inch-high curbs (Dames & Moore, 1989).
History of Release:	No documented release has occurred at this unit.
Observations:	Construction of this unit appears to be structurally sound and in good condition.
SWMU 3	**Neutralization Pit and Chemical Room Area**
Unit Description:	The Chemical Room is located in the south-central part of the main building (see Figure 2 and Photo Nos.3 and 4). This room contains acid baths used to strip coatings off of parts; parts are then rinsed in separate rinse tanks also located in this room. The neutralization pit consists of a 70-inch-long by 48-inch-wide and 72-inch-deep, resin-coated, fiberglass tank (below ground level).

The tank is used to adjust the pH of discharged rinse waters generated from acid stripping and rinsing operations. Wastewater is adjusted to a pH ranging from 6 to 10, prior to discharge to the MSD sanitary sewer. This unit also includes the area just outside the Chemical Room where spent nitric and phosphoric acid solution is transferred to 180-gallon tote tanks prior to transfer to SWMU 1. A 150-gallon in-ground fiberglass tank is also located in this area. This "overflow tank" is used in the transfer of spent nitric and phosphoric acid solution to 180-gallon tote tanks.

Date of Startup: This unit began operating in 1975.

Date of Closure: This unit is currently operating.

Wastes Managed: This unit manages phosphoric and nitric acid, ferric chloride, muriatic acid, and hydrochloric acid.

Release Controls: The floor of the entire plant and the Chemical Room area are paved with concrete. The acid wash and rinse tanks have a fiberglass secondary containment basin beneath the acid wash and rinse tank system. The secondary containment drains to the neutralization pit. The tanks rest above the containment basin and are supported by steel I-beams.

History of Release: No documented release has occurred at this unit.

Observations: Construction of this unit appears to be structurally sound and in good condition.

SWMU 4 **Grit Blast and Codep Powder Dust Collectors**

Unit Description: Three dust collectors are located on the west end of the main building, north of the loading bays (see Photo Nos.5 and 6). The area fenced around this unit is about 10-feet wide and 35-feet long. The two northern-most dust collectors handle waste dust from the grit-blasting operations. Grit-blasting operations use aluminum oxide grit to polish and remove any excess material or coatings from parts. The southern-most dust collector collects

excess dust from the Codep room operations. These operations use aluminum oxide, titanium, and carbon activated by ammonium chloride to form a protective coating on parts. Wastes are collected through a system of hoods designed to capture excess grit and dust. The hoods carry the dust through ducts to the collectors. The grit and dust exit the collectors into 55-gallon drums. These wastes are stored inside the fenced area surrounding the unit.

Date of Startup: These units began operation in 1978.

Date of Closure: These units are currently operating.

Wastes Managed: These units manage aluminum oxide, titanium, and carbon.

Release Controls: After passing through a canvas funnel located at the base of the dust collection system, dusts are collected in open-top 55-gallon drums. The area around and beneath the dust collectors is paved with asphalt and is enclosed by a locked, 6-foot-high, chain-link fence covered with a plastic material to break the wind.

History of Release: No documented releases have occurred at this unit. However, during the VSI, PRC observed material thought to be aluminum oxide dust overflowing from a 55-gallon drum beneath the grit-blasting dust collector. This material had spilled onto the ground both inside and outside the fence surrounding the unit.

Observations: These units appear to be in moderately good condition. Two of the three collectors were in operation at the time of the visit. It is not known if there are any operating problems with the non-operable unit. New parts appear to be installed as needed and the unit is painted occasionally to prevent deterioration of the units. Sloppy waste handling conditions contributed to grit blast dusts overflowing the drums.

4.0 AREAS OF CONCERN

PRC identified no AOCs during the PA/VSI.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VSI identified 4 SWMUs and no AOC's at the GE facility. Background information on the facility's location, operations, waste generating processes, release history, regulatory history, environmental setting, and receptors is presented in Section 2.0. SWMU-specific information, such as the unit's description, dates of operation, wastes managed, release controls, release history, and observed condition, is discussed in Section 3.0. As note in Section 4.0, no AOCs were identified. Following are PRC's conclusions and recommendations for each SWMU. Table 3 identifies the SWMUs at the GE facility and suggested further actions.

SWMU 1 **Existing Hazardous Waste Container Storage Area**

Conclusions: Closure activities for this unit appear to have been properly conducted, and no evidence existed of a release from the unit. At present, the unit stores hazardous waste for less than 90 days. Containment structures appear structurally sound. The probability of a release to environmental media is considered low. The potential for a release to environmental media from this unit is summarized below.

Ground Water: Low. The area surrounding the unit is completely paved with asphalt and the secondary concrete containment dike around the unit is adequate.

Surface Water: Low. The area surrounding the unit is completely paved with asphalt and the secondary concrete containment dike around the unit is adequate. Any spills from this unit would be contained before reaching the nearest surface water body, Ross Run, located about 400 feet south of the unit.

Air: Low to moderate. The potential for contaminant release to the air is considered low to moderate if the integrity of the drums were to be breached. Some drummed waste contains volatile organics which could volatize upon exposure to the air.

On-site soils: Low. There are no exposed soils near this unit. It is unlikely that a spill large enough to reach the nearest exposed soils would occur.

TABLE 3

SWMU SUMMARY

SWMU	Operational Dates	Evidence of Release	Suggested Further Action
1. Existing Hazardous Waste Container Storage Area	1985 to present	None	No further action.
2. Former Hazardous Waste Container Storage Area	1980 to present	None	No further action.
3. Neutralization Pit and Chemical Room Area	1975 to present	None	The facility should be advised to certify integrity of the tank walls.
4. Grit Blast and Codep Powder Dust Collectors	1978 to present	Aluminum oxide from the grit-blast collectors	The facility should be advised to inspect collectors daily.

Recommendations: No further action is recommended for this unit.

SWMU 2 Former Hazardous Waste Container Storage Area

Conclusions: Closure activities for this unit appeared to have been properly conducted, and no evidence existed of a release from the unit. At present, the unit is used as a satellite accumulation area for hazardous waste storage. hazardous waste drums are moved to SWMU 1 when filled. Containment structures appear structurally sound and designed to contain a release from this unit. The probability of a release to environmental media is considered low. The potential for a release to environmental media from this unit is summarized below.

Ground Water: Low. The area surrounding the unit is completely paved with concrete and no cracks were observed. The unit is located indoors, protected from the weather. Secondary containment is provided by steel trays surrounding the drums.

Surface Water: Low. The area surrounding the unit is completely paved with sound concrete and is located indoors. Secondary containment is provided by steel trays surrounding the drums to contain potential spills. Any spills from this unit would be contained before reaching the nearest surface water body, Ross Run, located about 325 feet south of the unit.

Air: Low. The potential for contaminant release to the air is considered low if the integrity of the drums were to be breached. This is due to the indoor location of the unit, and quantity of volatile waste stored (1-2 drums).

On-site soils: Low. No exposed soils are near this unit. A spill large enough to reach the nearest exposed soils is unlikely.

Recommendations: No further action is recommended this unit.

SWMU 3 Neutralization Pit and Chemical Room Area

Conclusions: This unit is properly monitored and maintained, and no evidence exists of a release from the unit. Primary containment structures appear structurally sound; however, no secondary containment exists for the in-ground, fiberglass, and resin-coated neutralization pit tank. The probability of a release to environmental media is considered low to moderate due to the age of the tank. The potential for a release to environmental media from this unit is summarized below.

Ground Water: Low to moderate. The chemical room area is located indoors and is paved with concrete. The neutralization pit is an in-ground, fiberglass, resin-coated tank capable of handling 650 gallons of wastewater. No secondary liner exists should the integrity of the tank walls fail. The tank was installed in 1975, and the integrity and structural condition of the tank could not be verified during the VSI.

Surface Water: Low. The neutralization pit is located below ground and poses a low threat to surface water.

Air: Low. The potential for contaminant release to the air is considered low. Wastewater handled by this unit does not pose a problem to this media.

On-site soils: Low to moderate. Subsurface soils could potentially become contaminated by a release from the neutralization tank should the integrity of the tank be breached.

Recommendations: The facility should be advised to certify integrity of the tank walls.

SWMU 4 Grit Blast and Codep Powder Dust Collectors

Conclusions: These units are generally in good condition. However, the management of the waste dusts collected by this unit is poor. A release of grit-blast dust to the area immediately surrounding this unit was observed during the VSI. The probability of a future release to environmental media is considered high due to the waste management practices for this unit. The potential for a release to environmental media from this unit is summarized below.

Ground Water: Low. It is unlikely that a release from this unit would result in contamination of ground water. The area around the unit is paved with asphalt, preventing a release from reaching ground water.

Surface Water: High. The potential for a release to surface water is considered high due to the release observed during the VSI. Surface water runoff could carry wastes to nearby stormwater drains and to Ross Run.

Air: High. The potential for contaminant release to the air is considered high. Dust collected by this unit were observed to have been carried 10 to 15 feet from the collection drums.

On-site soils: Low. The site is almost completely paved, and no soils are exposed.

Recommendations: The facility should be advised to inspect collectors daily.

REFERENCES

Dames & Moore, 1989. GE Modified Closure Plan for Hazardous Waste Container Storage Areas, June 5.

Dames & Moore, 1990. GE Existing and Former Hazardous Waste Container Storage Area Closure Certification, June.

GE, 1989. Part A Permit submitted to OEPA, August.

GE, 1980. Part A Permit submitted to OEPA, August.

Hazardous Waste Facility Approval Board (HWFAB), 1981. Permit for Hazardous Waste Storage Units at the GE facility, December 28.

Moran, 1992. Telephone Conversation with Dick Moran, City of Cincinnati Planning Department, and Gabe Rood, PRC, April 23.

Ohio Department of Natural Resources (ODNR), 1946. Ground Water Conditions in Butler and Hamilton Counties, Ohio Division of Water, Bulletin 8, May.

ODNR, 1991. Janice Gartner, Environmental Technician memo to Gabe Rood PRC Environmental Management, Inc., April.

Ohio Environmental Protection Agency (OEPA), 1990. Letter from Thomas E. Crepeau, to Mark Wanek (GE), Regarding Ohio Permit No. 05-31-0376, HW Container Storage Unit Completion of Closure Process, September 28.

U.S. Department of Agriculture (USDA), 1982. Soil Survey of Hamilton County.

U.S. Department of Commerce, 1963. Rainfall Frequency Atlas of the United States. Technical Paper No.40, U.S. Government Printing Office, Washington D.C.

United States Geological Survey (USGS), 1981. 7.5 Minute Topographical Quadrangle Map, Cincinnati East, Ohio.

ATTACHMENT A

EPA PRELIMINARY ASSESSMENT FORM 2070-12

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	OHD000817304

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
GE Aircraft Engines Aviation Component Service Center	1350 Tennessee Avenue

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Cincinnati	OH	45229	Hamilton		

09 COORDINATES: LATITUDE	LONGITUDE
39° 10' 07 .0"	84° 28' 17 .0"

10 DIRECTIONS TO SITE *(Starting from nearest public road)*

I-75 North from downtown Cincinnati to the Norwood Lateral (East). Take the Reading Road exit and turn right onto Reading Road. Proceed on Reading Road and turn right onto Tennessee Avenue. GE is located at 1350 Tennessee Avenue.

III. RESPONSIBLE PARTIES

01 OWNER *(if known)*	02 STREET *(Business, mailing residential)*
M. Elizabeth Miller	Unit 305, 20109 Waters Edge Drive

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Boca Raton	FL	33434	(513) 241-3100

07 OPERATOR *(If known and different from owner)*	08 STREET *(Business, mailing, residential)*
GE Aviation Service Operation	I-75 and Newman Way

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
Cincinnati	OH	45215	(513) 243-5194

13 TYPE OF OWNERSHIP *(Check one)*

☒ A. PRIVATE ☐ B. FEDERAL: _____ *(Agency name)* ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL

☐ F. OTHER _____ *(Specify)* ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE *(Check all that apply)*

☐ A. RCRA 3001 DATE RECEIVED: ___/___/___ MONTH DAY YEAR ☐ B. UNCONTROLLED WASTE SITE *(CERCLA 103 c)* DATE RECEIVED: ___/___/___ MONTH DAY YEAR ☒ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION BY *(Check all that apply)*

☒ YES DATE 4/15/91 ☐ NO

☐ A. EPA ☒ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR ☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ *(Specify)*

CONTRACTOR NAME(S): PRC Environmental Management, Inc.

02 SITE STATUS *(Check one)*	03 YEARS OF OPERATION
☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN	1975 (BEGINNING YEAR) | Present (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

1,1,1-trichloroethane, Sermaloy, Acidic phosphate, Acidic chromate, Aluminum, Silicon power, Chromium, Chrome bifluoride, Mineral oil, Nickel chloride, and Waste oil mixture

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

175 employees working three shifts at the facility

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION *(Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents.)*

☐ A. HIGH *(Inspection required promptly)* ☐ B. MEDIUM *(Inspection required)* ☒ C. LOW *(Inspect on time-available basis)* ☐ D. NONE *(No further action needed; complete current disposition form)*

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF *(Agency/Organization)*	03 TELEPHONE NUMBER
Chris Kotsko	Ohio Environmental Protection Agency	(513) 285-6357

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Gabriel J. Rood		PRC	(513) 241-0149	4 /15/ 91 MONTH DAY YEAR

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	OHD000817304

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES *(Check all that apply)*

- ☒ A. SOLID
- ☒ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ *(Specify)*
- ☐ E. SLURRY
- ☒ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE
(Measures of waste quantities must be independent)

TON unknown

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS *(Check all that apply)*

- ☒ A. TOXIC
- ☒ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☒ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☒ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE	unknown		
SOL	SOLVENTS	unknown		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	unknown		
IOC	INORGANIC CHEMICALS	unknown		
ACD	ACIDS	unknown		
BAS	BASES	unknown		
MES	HEAVY METALS	unknown		

IV. HAZARDOUS SUBSTANCES *(See Appendix for most frequently cited CAS Numbers)*

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
IOC	Liquid N.O.S. (Sermaloy)		90 days	unknown	
IOC	Solid N.O.S. (Sermaloy)		90 days	unknown	
MES	Chrome bifluoride		90 days	unknown	
IOC	Waste nitric acid mix		90 days	unknown	
OLW	Mineral oil		90 days	unknown	
MES	Nickel chloride		90 days	unknown	
OLW	Waste oil mixture		90 days	unknown	
OCC	1,1,1-trichloroethane	71-55-6	90 days	unknown	

V. FEEDSTOCKS *(See Appendix for CAS Numbers)*

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION *(Cite specific references; e.g., state files, sample analysis, reports)*

Dames & Moore, 1989. Modified Closure Plan for Hazardous Waste Container Storage Areas at GE.

Revised Part A for GE-Tennessee Avenue Facility, August 16, 1989.

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE: OH	02 SITE NUMBER: OHD000817304

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION | 02 ☐ OBSERVED (DATE: _____) | ☒ POTENTIAL | ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION

There is a potential for release to ground water. The 16-year old neutralization pit has no secondary containment and the integrity and structural condition of the pit are unknown.

01 ☐ B. SURFACE WATER CONTAMINATION | 02 ☐ OBSERVED (DATE: _____) | ☒ POTENTIAL | ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION

Surface water run-off could carry the waste dust to nearby storm water drains and to Ross Run. Some spilled grit-blast dusts on the paved ground near the dust collection area were observed during the VSI.

01 ☐ C. CONTAMINATION OF AIR | 02 ☐ OBSERVED (DATE: _____) | ☒ POTENTIAL | ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION

A release of grit-blast dust to the area immediately surrounding the dust collectors was observed during the VSI. The potential for contaminant release to the air in considered high.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION

None.

01 ☒ E. DIRECT CONTACT | 02 ☐ OBSERVED (DATE: _____) | ☒ POTENTIAL | ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION

The spilled dust could be contacted by the workers.

01 ☐ F. CONTAMINATION OF SOIL | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED

03 AREA POTENTIALLY AFFECTED: _____ *(Acres)* | 04 NARRATIVE DESCRIPTION

The site is almost completely paved, and no soils are exposed.

01 ☐ G. DRINKING WATER CONTAMINATION | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION

No residential use of the ground water is known. Drinking water for the City of Cincinnati comes from the Ohio River.

01 ☐ H. WORKER EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED

03 WORKERS POTENTIALLY AFFECTED: 175 | 04 NARRATIVE DESCRIPTION

Any potential exposure at the site would most likely affect workers on site.

01 ☐ I. POPULATION EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE: _____) | ☐ POTENTIAL | ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: None. | 04 NARRATIVE DESCRIPTION

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
OH	OHD000817304

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

04 NARRATIVE DESCRIPTION (Include name(s) of species)

None

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

None

01 ☐ N. DAMAGE TO OFF-SITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPS — ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None

III. TOTAL POPULATION POTENTIALLY AFFECTED: 175

IV. COMMENTS

V. SOURCES OF INFORMATION *(Cite specific references; e.g., state files, sample analysis, reports)*

Ohio EPA - Southwest District Office Annual RCRA Interim-Status Inspection Forms (1983-1990).

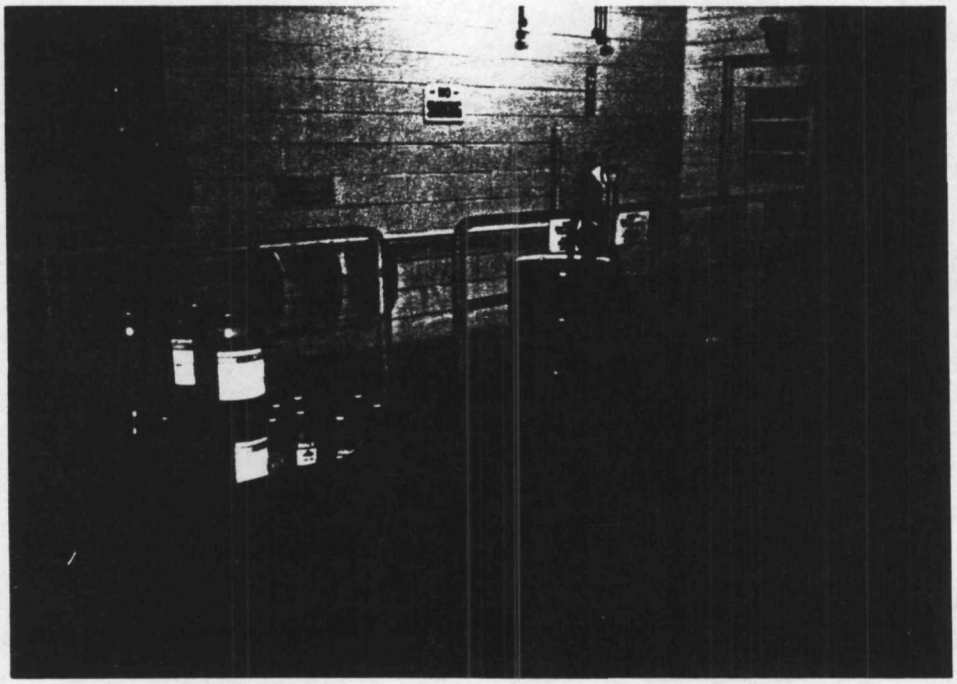
ATTACHMENT B

VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS

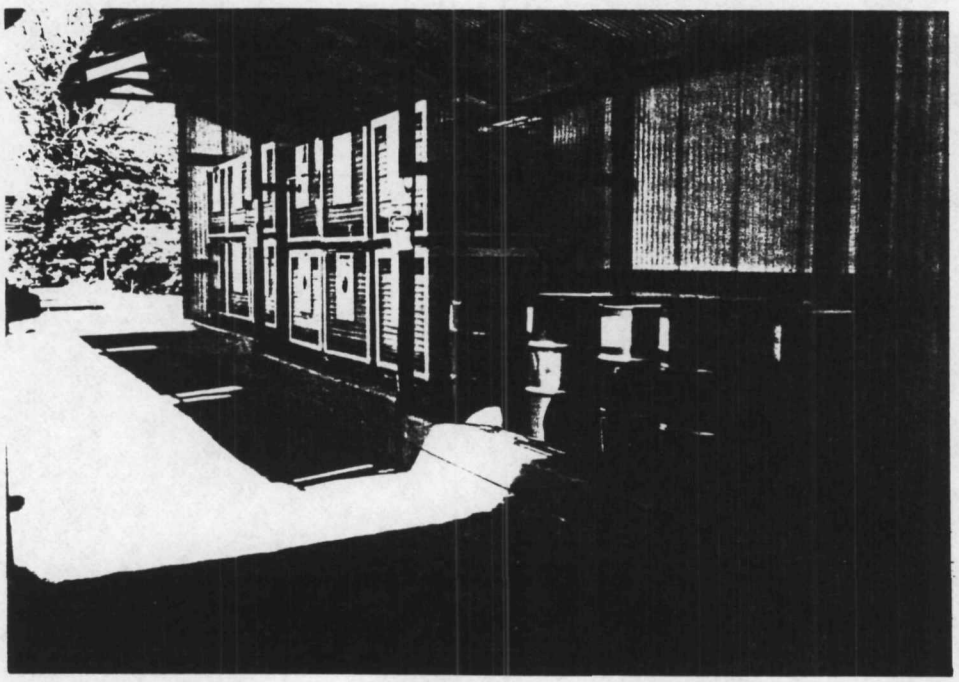
VISUAL SITE INSPECTION SUMMARY

GE Aviation Component Service Center
1350 Tennessee Avenue
Cincinnati, Ohio
OHD 000 817 304

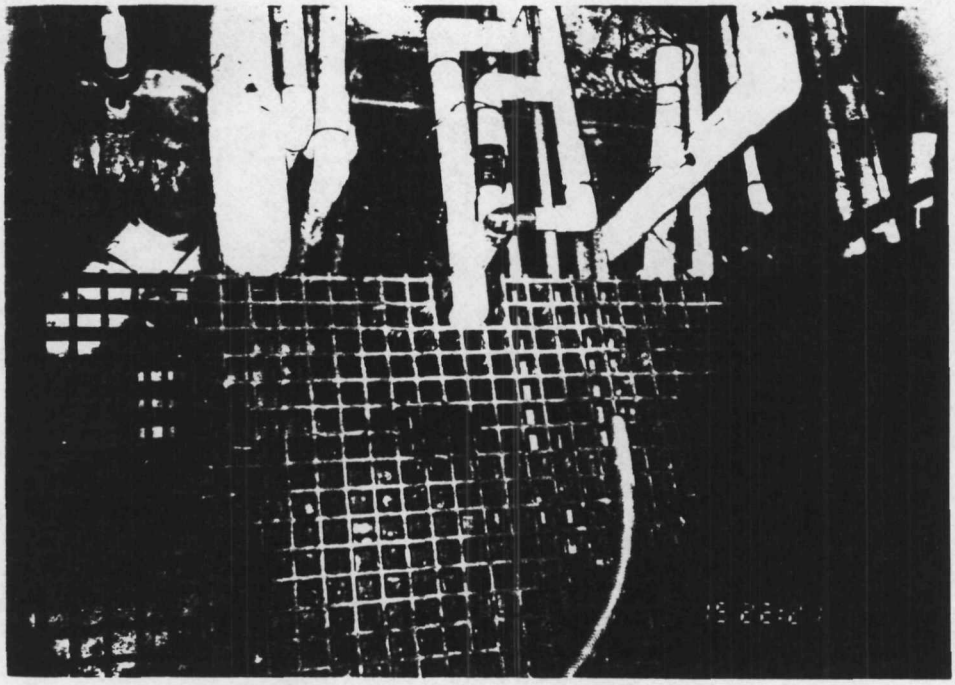
Date:	April 15, 1991
Facility Representatives:	Mark Wanek, GE Environmental Safety and Health Officer Paul Anderson, GE Environmental Awareness Team Member David Bryant, GE Environmental Awareness Team Member John Claybern, GE Environmental Awareness Team Member Tom Williams, GE Environmental Awareness Team Member Matt Powers, GE Environmental Awareness Team Member
Inspection Team:	Gabe Rood, PRC Jon Lewis, PRC
Photographer:	Jon Lewis, PRC
Weather Conditions:	Overcast, 63°F, winds 5 to 10 miles per hour from the south, light rain.
Summary of Activities:	The PRC VSI team was met by Mark Wanek, GE Environmental Safety & Health Officer, and members of the GE Environmental Awareness Team, at 8:30 AM on Monday, April 15, 1991. A kickoff meeting was held to explain the purpose of the inspection and discuss the history of the facility. The meeting was completed at 9:10 AM. The inspection began with an inspection of the main building production areas and included inspection of the Chemical room area, Codep powder room, Sermaloy coating room, and former hazardous waste container storage area. The grit blast and Codep powder dust collectors and existing hazardous waste container storage area were inspected along with other areas outside the main building. Following the inspection, PRC held a brief exit meeting with Mark Wanek and left the site at 11:30 AM.



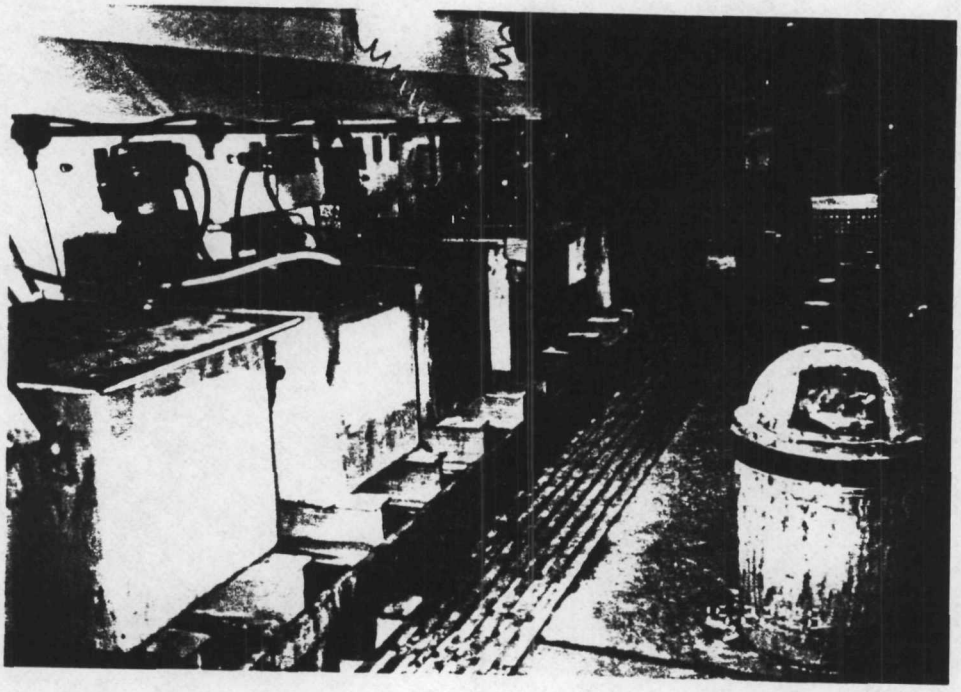
Photograph No. 1 Location: SWMU 2
Orientation: Northeast Date: April 15,1991
Description: Former hazardous waste container storage area now used for satellite accumulation; drums are stored inside metal trays.



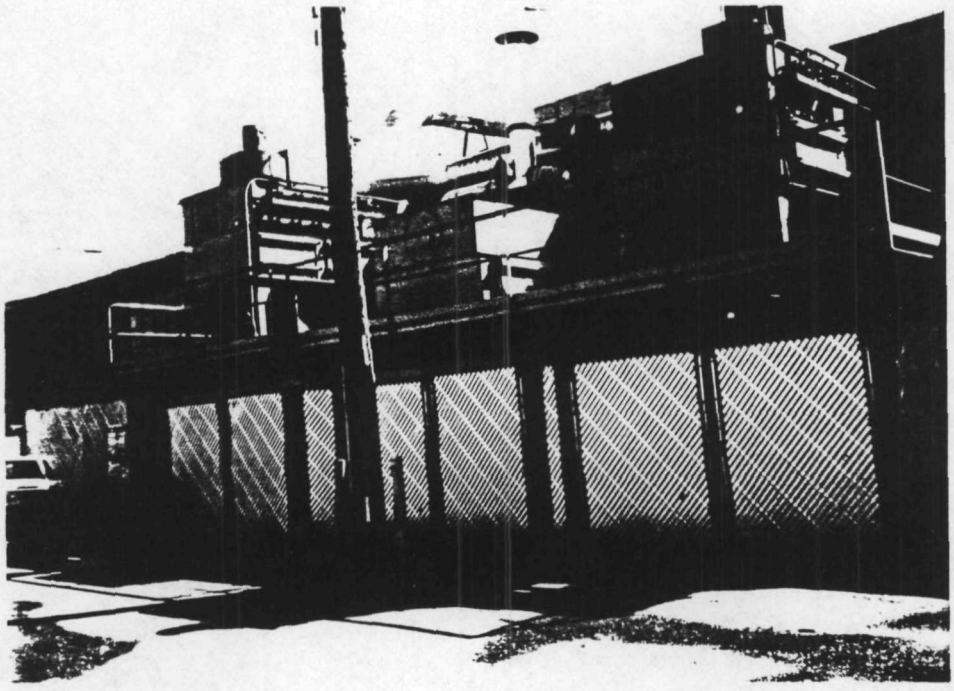
Photograph No. 2 Location: SWMU 1
Orientation: West Date: April 15, 1991
Description: Existing hazardous waste container storage area



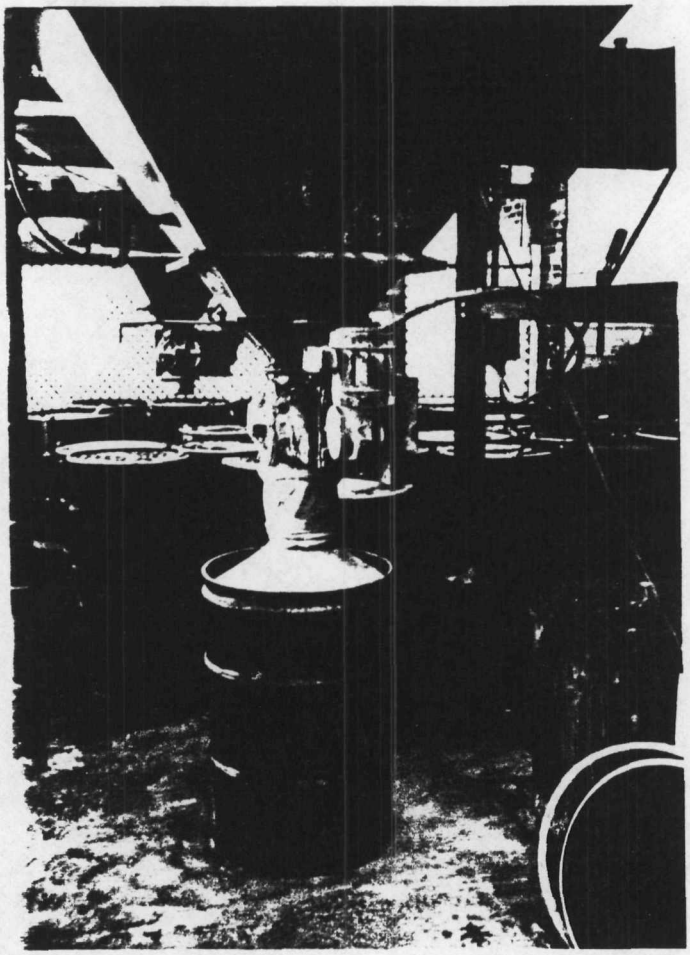
Photograph No. 3 Location: SWMU 3
Orientation: South Date: April 15, 1991
Description: View looking down into the neutralization pit located along the south wall of the Chemical room



Photograph No. 4 Location: SWMU 3
Orientation: South Date: April 15, 1991
Description: Chemical room acid and rinse tanks; neutralization pit is located at the base of the far wall.



Photograph No. 5 Location: SWMU 4
Orientation: Northeast Date: April 15, 1991
Description: The grit blast and Codep powder dust collectors; the two collectors at the left of handle grit blast dust. The Codep powder collector is on the right. Some spilled grit blast dust can be seen on the ground in front of the center gate.



Photograph No. 6 Location: SWMU 4
Orientation: North Date: April 15,1991
Description: Isolated view of the southern-most grit blast collector; note spilled dust on the ground.

ATTACHMENT C

VISUAL SITE INSPECTION FIELD NOTES

04/15/91 Monday

0830 - Weather: overcast, temperature ~ 63°F, winds 5-10 mph from the south, drizzle rain

Location: GE Aviation Service Center at 1350 Tennessee Ave. Cin. OH # OHD 000817304

GE -
Mark Wauk Env. Engineer
Paul Anderson
David Bryant
John Claybern
Tom Williams + Matt Powers
Team members ↓

each prod. unit has a representative (above) cover env. health + safety at plant

175 employees, 2 shop (manuf) repair high pressure turbine blades from airline engines, w/ cracks coatings blister on blades. asses condition of the

part, clean parts, x-ray decide whether it's repairable or not, build up tip blade if cracked reweld, coat, dip weld if cracks go below tip cap

various coatings are applied - aluminized coatings, coatings sometimes removed and re-applied, check w/ x-rays.

Nitric, phosphoric acids used to strip coatings (waste) acids are high in metal content and can't be discharged to neutralization pit. Rinse waters from these treatments discharged through the neutralization pit to MSD.

Miller belt manufacturer used the building prior to 1975.

ist collectors - grit and dust from grit blast and sanding powder and Codep (coating process the recoating of blades) excess dust from the corrossion and temperature resistant coating applied to the blades (oxidation resistance - extends life of the blade - aluminum & Chromium waste produced by this process)

Torit dust collectors are found at satellite grinding booths.

180 gal. tote tanks used for present day hazardous waste storage in the existing haz. waste storage area

0910 - conclude meeting
begin tour of site
5 models of blades repaired

1) incoming
2) prep for welding
3) weld
4) prep for laser weld
5) laser weld
6) Codep Coatings

Chem room - strip coating off of parts neutralization pit located in back of this room. when A10 solution is spent - it's pumped into tote tank for haz waste solution - nitric/phosphoric acid ~180 gallons moved to existing storage area
Pumped from A10 tank to 180 gallon tote tank
rinse waters and alkaline cleaning solutions

2-N

N crubber pit for air exhaust system also in this pit. This pit in operation since 1975
secondary containment of rinse/wash tanks
Fiberglass tank w/resin coat
70" x 48" (dimensions)
~ 6-7 (ft) deep. pH 6-10 range monitored continuously and discharged when pH range - pit is fiberglass in ground no containment
PVC lines bring solutions into tank est. ~ 650 gallons
concrete floor in this room
Sodium hydroxide (~50%) used sometimes to manually balance pH. Na OH is normally added automatically

Satellite accumulation area for A10 Tote tanks for phos/nitric acid (A10)
via PVC lines on the outside

ferric chloride etch also handled in the Chem Room - 55 gallon drum also waste from this area goes to haz. waste storage area. Approx. 1 55 gallon drum/month of ferric chloride disposed.
Nitric/phos. goes to Tric. I in Hilliard, OH

Holding tank - 150 gallons fiberglass tank used for excess nitric acid and H2O in 50/50 mix - overflow cap.

Etch Stations - remove fine imperfections - polishing operation waste (muratic + nitric (HCl) acid + via PVC to neutralization pit and finally discharged to MSD. (found thru out plant)

Vapor blasting operations produce an alum. Oxide waste (very small quantities ~ 1-2 lbs/month)

Torits - material from grinding disposed of as solid waste due to size and solubility

Grit blasting area - used for grinding off coating of Codep - outside dust collected

Codep room - where powders are mixed and coating applied by powder sifting around parts - furnaces bake the powder alum. Oxide titanium and carbon ~ 7% alum., activated w/ ammonium chloride

Sermaloy J aluminum + chromium coating applied in a booth Coating room started in 1978 excess spray disposed of as

hazardous waste - contamin. alum. foil, paper towels, plastic aprons and gloves paper. Sermaloy is a grey looking liquid prod.

Early 80's dock area underwent closure in 1990 presently satellite accumulation area. TCE vapor degreaser 1,1,1-trichloroethane 55 gallon drums. N.O.S. RQ waste flammable liquid (D001)

(F001, D001) RQ waste combustible liquid, N.O.S. (waste oil & 1,1,1-trichloroethane

(4) Drums stored here are stored on a concrete floor in steel trays w/ ~ 6" high curbs, ~ 8' long and 3' wide

3 solvent degreasers in the plant that use 1,1,1 trichloroethane to degrease parts, waste TCE goes to satellite acc. area dock & then outside to haz. waste storage area.

1st ~~125~~ 40 gallons - not in use at present

2nd ~ 400 gallon

3rd ~~125~~ 50 gallons - operable

tank

Steel on concrete floor

steel secondary contain. tray on all 3 tanks

entire plant is concrete floor - good condition.

Outside - 3 dust collector

South - Cedep powder collector

(2) North - grit blast collector

Grit blast dust collector drum is past full overflowing on to ground concrete pad

Visibly Area is surrounded by fence w/ wind breaking material

Concrete containment dike beneath existing hazardous waste area barrels rest on steel grates covered on 3 sides & roof w/ fiberglass panels.

Nitric acid

F001 (TCE)

D002, D007 Ferric Chloride, N.O.S. (HCl, HNO_3) RQ = 1,000, waste corrosive liquid and corrosive material

(D002, D007) nitric/phosphoric acid

10 55 gallon drums } stored under roof

12 180 gallon tanks }

2 55 gallon drums - stored uncontained next w/o' from pad - rest on asphalt bermed

area is fenced, black topped pad.

non-hazardous waste oil also stored here for air compressors 8 drums (55 gallon drums) in trays.

34

Residential Area - on hill
~2/10th mile SW of site
light industrial area

1130 Gate Road and
Tom Lewis, South
of PRC off site.

35

12, 13 VOID

Roll No: 1 Photo No: 11
Date: 4/5 Time: 10:25 Orientation: N
SWMU/AOC:
Location: ha see 19
Observations: see 19
overview of former HW drum storage shed

Roll No: Photo No: 14
Date: Time: 10:30 Orientation: NW
SWMU/AOC:
Location:
Observations: Degreaser 1,1,1 Trichlor small

Roll No: Photo No: 15
Date: Time: 10:30 Orientation: NE
SWMU/AOC:
Location:
Observations: Degreaser house

Roll No: Photo No: 16
Date: Time: 10:35 Orientation: SE
SWMU/AOC:
Location:
Observations: Degreaser small

Roll No: Photo No: 17
Date: Time: 10:40 Orientation: N
SWMU/AOC:
Location: outside W wall of bldg
Observations: Grit blast dust collector barrels in bldg (not sure if empty or full) collector drum is full, dust was blowing

Roll No: Photo No: 18
Date: Time: 10:40 Orientation: S
SWMU/AOC:
Location: see #17
Observations: CODEP dust collector observed dust blowing

Roll No: Photo No: 19
Date: Time: 10:50 Orientation: N
SWMU/AOC:
Location: HW storage shed
Observations: east end,

Roll No: Photo No: 20
Date: Time: 10:50 Orientation:
SWMU/AOC:
Location: see 19
Observations: west end

Roll No: Photo No: 21
Date: Time: 10:50 Orientation:
SWMU/AOC:
Location: See 19
Observations: overall view of HW storage shed, no 6' fence yet behind shed, 40' 20' embankment behind

Roll No: Photo No: 22
Date: Time: 10:50 Orientation:
SWMU/AOC:
Location: see storage shed NW corner of building
Observations: 2 HW drums not stored in storage shed

Roll No: 1 Photo No: 1
Date: 4/15 Time: 9:25 Orientation: Down
SWMU/AOC: Neutral. Pit in Chem Room
Location: Chem Room

Observations: Pit at southern end of room, covered with grate contains rinse water & milder cleaning agents

Roll No: 1 Photo No: 2
Date: 4/15 Time: 9:30 Orientation: S
SWMU/AOC: CR
Location: Chem Room

Observations: Left (east) side

Roll No: 1 Photo No: 3
Date: 4/15 Time: 9:30 Orientation: S
SWMU/AOC:
Location: Chem Room

Observations: West side of Chem Room

Roll No: 1 Photo No: 4
Date: 4/15 Time: 9:35 Orientation: W
SWMU/AOC: waste tank from Chem room
Location: outside chem room

Observations: 180 gall. TUFF tank NO containment

Roll No: 1 Photo No: 5
Date: 4/15 Time: 9:35 Orientation: W
SWMU/AOC: holding tank for PH/N
Location: below floor, next to 180 Gall holding tank

Observations: tank below floor - not visible

Roll No: 1 Photo No: 6
Date: 4/15 Time: 10:10 Orientation: W
SWMU/AOC:
Location: Codelo room

Observations: Used Codelo powder, dumped prior to collection in dust collector

Roll No: 1 Photo No: 7
Date: 4/15 Time: 10:15 Orientation: N
SWMU/AOC:
Location: Sermalloy J coating room

Observations: waste filters collected in drum.

Roll No: 1 Photo No: 8
Date: 4/15 Time: 10:15 Orientation: E
SWMU/AOC:
Location: Sermalloy J coating room

Observations: Drum for collecting all waste material from room.

Roll No: 1 Photo No: 9
Date: 4/15 Time: 10:20 Orientation: NW
SWMU/AOC:
Location: loading dock, W side of bldg

Observations: Satellite HW accum. area waste oil drums

Roll No: 1 Photo No: 10
Date: 4/15 Time: 10:20 Orientation: NE
SWMU/AOC:
Location: See #9

Observations: See #9

Photo No. _____
Date: _____ Time: _____
Direction Facing: _____
Description/Comments: _____

Photo No. _____
Date: _____ Time: _____
Direction Facing: _____
Description/Comments: _____

Photo No. _____
Date: _____ Time: _____
Direction Facing: _____
Description/Comments: _____

Photo No. 23
Date: _____ Time: 11:00
Direction Facing: NE
Description/Comments: overview of dust collectors, dust coll. dust

Photo No. _____
Date: _____ Time: _____
Direction Facing: _____
Description/Comments: _____

Photo No. _____
Date: _____ Time: _____
Direction Facing: _____
Description/Comments: _____

Roll No: _____ Photo No: _____
Date ____ Time: ____ Orientation: _____
SWMU/AOC: _____

~~Photo No. _____ SWMU/AOC: _____~~
~~Date: _____ Time: _____~~
~~Direction Facing: _____~~
~~Description/Comments:~~ observations:

Location: _____

Photo No. _____
Date: _____ Time: _____
Direction Facing: _____
Description/Comments: _____

Photo No. _____
Date: _____ Time: _____
Direction Facing: _____
Description/Comments: _____

Photo No. _____
Date: _____ Time: _____
Direction Facing: _____
Description/Comments: _____

Photo No. _____
Date: _____ Time: _____
Direction Facing: _____
Description/Comments: _____